

# DSE334

## AUTO TRANSFER SWITCH CONTROL MODULE

### FEATURES



The DSE334 is an Automatic Transfer Switch Controller. The DSE334 will monitor the voltage and frequency of the incoming AC supply from two different sources, which could be from both generator or mains (utility), or a combination of both. The module will monitor S1 (source 1) and in the event of a failure will issue a start command to S2 (source 2).

Once S2 is available and producing an output within limits, the module will control the transfer device and switch the load from S1 to S2. Once the S1 supply returns to within limits, the module will command a load return to S1 and shut down S2.

Various timing sequences are available to prevent nuisance starting on minor supply breaks.

The DSE334 supports many topologies and features include mains (utility) rated volt-free relays, a clear back-lit LCD 4-line text display, showing system status and warnings and red and green LEDs indicating operational status.

The modules can be easily configured using the DSE Configuration Suite PC Software. Selected front panel editing is also available.

Configurable volt-free digital inputs and outputs make the DSE334 fully flexible to suit a wide variety of applications.

When there is no DC supply, a compatible self-seeking power supply is available (DSE160).

### ENVIRONMENTAL TESTING STANDARDS

#### ELECTRO-MAGNETIC COMPATIBILITY

BS EN 61000-6-2  
EMC Generic Immunity Standard for the Industrial Environment  
BS EN 61000-6-4  
EMC Generic Emission Standard for the Industrial Environment

#### ELECTRICAL SAFETY

BS EN 60950  
Safety of Information Technology Equipment, including Electrical Business Equipment

#### TEMPERATURE

BS EN 60068-2-1  
Ab/Ae Cold Test -30 °C  
BS EN 60068-2-2  
Bb/Be Dry Heat +70 °C

#### VIBRATION

BS EN 60068-2-6  
Ten sweeps in each of three major axes  
5 Hz to 8 Hz @ +/-7.5 mm,  
8 Hz to 500 Hz @ 2 gn

#### HUMIDITY

BS EN 60068-2-30  
Db Damp Heat Cyclic 20/55 °C @ 95% RH 48 Hours  
BS EN 60068-2-78  
Cab Damp Heat Static 40 °C @ 93% RH 48 Hours

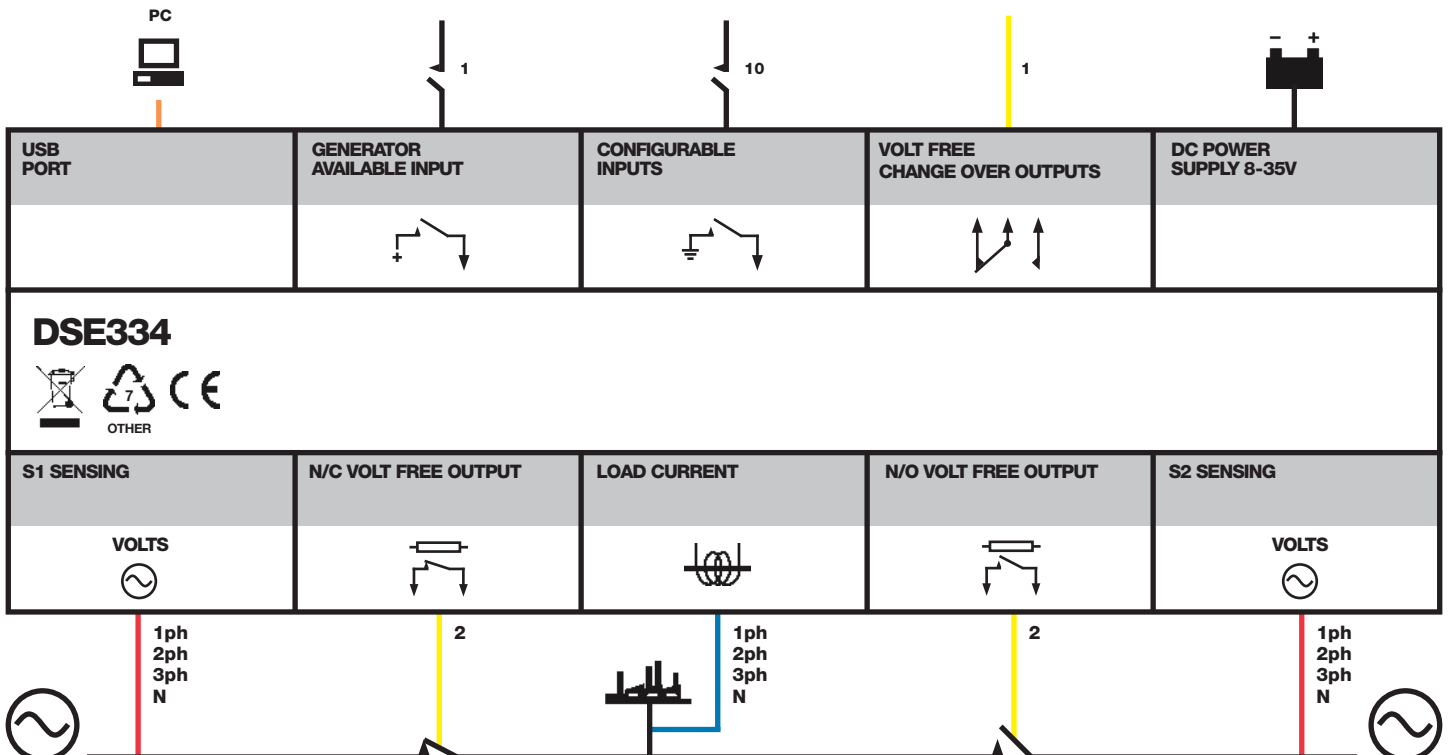
#### SHOCK

BS EN 60068-2-27  
Three shocks in each of three major axes  
15 gn in 11 ms

#### DEGREES OF PROTECTION PROVIDED BY ENCLOSURES

BS EN 60529  
IP65 - Front of module when installed into the control panel with the optional sealing gasket.

## COMPREHENSIVE FEATURE LIST TO SUIT A WIDE VARIETY OF ATS APPLICATIONS



# DSE334

## AUTO TRANSFER SWITCH CONTROL MODULE

### FEATURES



### KEY FEATURES

- Volt-free relays
- Supports many topologies
- Automatic switch-over between supplies
- Check sync feature
- Real-time clock
- 10 configurable inputs
- 5 configurable outputs
- Event log (10)
- Configurable timers
- Automatic shutdown or warning when fault conditions are detected

- PC configuration
- Front panel configuration
- LED indicators
- Back-lit 4-line text LCD display
- External mains (utility) or genset failure inputs
- Auto start inhibit
- Load inhibit
- Manual restore to S1
- Optional current monitoring

### KEY BENEFITS

- Source 1/Source 2 configuration provides total flexibility for the application of the product
- Real-time clock provides accurate event information for easy maintenance diagnostics
- User-friendly set-up and button layout
- Fully automatic and switch-over control minimises the effects of power disruptions

### SPECIFICATION

#### DC SUPPLY

**CONTINUOUS VOLTAGE RATING**  
8 V to 35 V Continuous

#### CRANKING DROPOUTS

Able to survive 0 V for 50 mS, providing supply was at least 10 V before dropout and supply recovers to 5 V. This is achieved without the need for internal batteries. LEDs and backlight will not be maintained during cranking.

#### MAXIMUM OPERATING CURRENT

292 mA at 12 V, 167 mA at 24 V

#### MAXIMUM STANDBY CURRENT

101 mA at 12 V, 66 mA at 24 V

#### MAINS (UTILITY)

**VOLTAGE RANGE**  
15 V to 333 V AC (L-N)

**FREQUENCY RANGE**  
3.5 Hz to 75 Hz

#### OUTPUTS

**OUTPUT A (MAINS/UTILITY/S1)**  
Normally closed volt-free output  
8 A AC at 250 V AC

**OUTPUT B (GENERATOR/S2)**  
Normally open volt-free output  
8 A AC at 250 V AC

**OUTPUT C (START AND RUN)**  
Normally closed volt-free output  
8 A DC at 35 V DC (UL Rating 30 V)

**OUTPUT D**  
Changeover volt-free output  
8 A AC at 250 V AC

**OUTPUT E**  
Normally open volt-free output  
8 A AC at 250 V AC

#### GENERATOR

**VOLTAGE RANGE**  
15 V to 333 V AC (L-N)

**FREQUENCY RANGE**  
3.5 Hz to 75 Hz

#### DIMENSIONS

**OVERALL**  
215 mm x 158 mm x 42 mm  
8.5" x 6.2" x 1.6"

**PANEL CUT-OUT**  
182 mm x 137 mm  
7.2" x 5.4"

**MAXIMUM PANEL THICKNESS**  
8 mm  
0.3"

**OPERATING TEMPERATURE RANGE**  
-30°C to +70°C

**STORAGE TEMPERATURE RANGE**  
-40°C to +80°C

### RELATED MATERIALS

#### TITLE

DSE334 Installation Instructions  
DSE334 Operator Manual  
DSE334 Configuration Suite PC Manual  
DSE160 Self-Seeking Power Supply Data Sheet  
DSE160 Operator Manual

#### PART NO'S

053-135  
057-154  
057-156  
055-076  
057-108

### DEEP SEA ELECTRONICS PLC UK

Highfield House, Hunmanby Industrial Estate, Hunmanby YO14 0PH  
**TELEPHONE** +44 (0) 1723 890099 **FACSIMILE** +44 (0) 1723 893303  
**EMAIL** sales@deepseapl.com **WEBSITE** www.deepseapl.com

### DEEP SEA ELECTRONICS INC USA

3230 Williams Avenue, Rockford, IL 61101-2668 USA  
**TELEPHONE** +1 (815) 316 8706 **FACSIMILE** +1 (815) 316 8708  
**EMAIL** sales@deepseausa.com **WEBSITE** www.deepseausa.com